XSTACK

High Performance Switching

+ Stack Up to 32 Units Per Stack using SIM
+ Optional Redundant Power Support
+ Jumbo Frame Support (up to 9K)
+ IPv6 Aware[1]

Advanced Metro Switching

+ 802.1p Priority (8 Queues)
+ Double VLAN Tagging
+ Bandwidth Control
+ QoS based on L2/3/4
+ 802.3ad (Link Aggregation)
+ 802.1x (Port-Based Authentication)
+ 802.1x (MAC-Based Authentication)
+ 802.1q VLANs (Up to 4094 Groups)
+ Guest VLAN
+ Web-based Access Control (WAC)
+ MAC-based Access Control (MAC)
+ IP/MAC/Port Binding

Advanced Dynamic L3 Routing

+ RIP v1/2
+ OSPF
+ OSPF Passive Interface
+ Multi Path Routing[1]
+ DVMRP/VRRP
+ Multiple IP per VLAN
+ Floating Static Route
+ IGMP v1/2/3
+ PIM-DM/PIM-SM

Network Management

+ Console/Telnet/Web GUI
+ SNMPv1/v2/v3 / RMON (4 Groups)
+ SSH2, TACACS+, SSL
+ ACL L2/L3/L4
+ Supports Microsoft NAP[1]

xStack Managed 24-Port 10/100 Stackable L3 Switch, 4 Gigabit Copper Ports, 2 Combo SFP

Overview

For the SMB requiring a cost effective core switching solution, as well as for larger Enterprise and Metropolitan Service Provider (MSP) environments needing a managed, feature rich switch capable of uplinking to backbone switches, the D-Link xStack DES-3828 is designed to meet the needs of the most demanding departmental and enterprise connectivity applications. The xStack DES-3828 Switch is a fully managed Layer 3 switch that provides 24 10/100Mbps Fast Ethernet ports and 2 Combo SFP/1000BASE-T Gigabit Ethernet ports. In addition, 2 fixed 1000BASE-T ports in the back-panel can provide a dedicated trunk connection between devices or core switches. The xStack DES-3828 also provides virtual stacking functionality via D-Link Single IP Management (SIM) technology allowing up to 32 units to be managed via a single IP address. With support for Q-in-Q Double VLAN tagging, IPv6 awareness[1], Dynamic Layer 3 Routing, IEEE802.1s, and bandwidth control, the xStack DES-3828 incorporates advanced features suitable for the MSP as well as the SMB and Enterprise size network.

Advanced L3 Routing

The xStack DES-3828 is a high performance Layer 3 switch that provides an ideal solution by offering advanced Layer 3 routing features such as RIP, OSPF, VRRP, up to 10 IP addresses per VLAN, and floating static routes. Multi-path Routing[1], which is the method of establishing multiple paths between given source-destination nodes within a network, is also a feature supported on the xStack DES-3828. These added routing features provide redundancy, improve network utilization, and provide load balancing for the network.

Metro Switching

Service provider networks are moving from circuit-based access to newer packet-based access that requires highly reliable intelligent switching and demands resiliency and dependability. The xStack DES-3828 meets this demand by supporting industry standards for 802.1s (Multiple Spanning Tree), 802.3ad link aggregation for up to 32 groups, bandwidth rate limiting down to 64k, and support for an external redundant power option for added peace of mind. In addition, the xStack DES-3828 offers Double VLAN Q-in-Q tagging, which adds on an additional tag to a VLAN tag, expanding the VLAN space and allowing service providers to deploy their service quickly and securely. The xStack DES-3828 also incorporates advanced QoS support such as the ability to filter and forward traffic based on Layer 2/3/4, making it an ideal choice for VoIP, video, and audio services targeting business class customers.

Network Security

The xStack DES-3828 is equipped to handle many of today's emerging security vulnerabilities. Up to 800 independent access control lists can be configured with the ability to filter and block traffic based on such criteria as: Port, MAC, 802.1p priority, VLAN, DSCP, IP address, Protocol type, and TCP/UDP port number and content, proving that the xStack DES-3828 provides unparalleled security in its class. In addition, the xStack DES-3828 incorporates 802.1x Port-based and MAC-based RADIUS authentication for secure network logins and SSH/SSL for increased management security. Further, the xStack DES-3828 incorporates IP-MAC-Port Binding and the D-Link Safeguard Engine to protect the CPU from broadcast, multicast, and unicast flooding.

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Technical Specifications

Product specifications

DES-3828	xStack Managed 24 Port 10/100 Stackable L3 Switch, 4 Gigabit Copper Ports, 2 Combo SFP
Packet Buffer	32MB
MAC Address Table	16K
IP Address Table	4K
IP Routing	128 Static/ 2K Total Hardware Routing Table
Aggregated Bandwidth	12.8Gps
Transmission Method	Store-and-Forward
Forwarding Rate	14,880pps (10M), 148,800pps (100M), 1,488,000pps (1000M)
VLANs Support	Up to 4K Static, 255 Dynamic 802.1p VLAN Groups
Priority Queues	8 Queues - Strict Priority or Weight Round Robin Queue Scheduling
Classification ACLs	MAC Address, IP Address, TCP/UDP Port Number & Payload, Physical Port, DSCP, 802.1p,VLAN, Protocol Type
Classification QoS	MAC Address, IP Address, TCP/UDP Port Number, Physical Port, DSCP, ToS
Multicast Support	IGMP v1/2/3, IGMP Snooping, PIM-SM, PIM-DM, DVMRP
Jumbo Frames	Up to 9KB
Number of IP Interfaces per VLAN	64
Multicast Duplication	Hardware Packet Replication on 8 VLANs on FE Ports and 32 VLANs on GE Ports
Port Security	Supports 16 MAC Addresses per Port
Broadcast Storm Bandwidth Control	Minimum Granularity: 1pps per Port
IP-MAC-Port Binding	Supports 500 Entries per Device
D-Link Safeguard Engine	Protect CPU from Broadcast/Multicast/Unicast Flooding
CPU Monitoring	Utilization via Web/CLI/SNMP. Trap /Logging Notification When Configurable Threshold Reached

Interface Options

RJ-45	10BASE-T, 100BASE-TX, & 1000BASE-T
LC	With Optional Standard Small Form-Factor Pluggable (SFP) Gigabit Transceivers
RPS	Redundant Power Supply Via Optional (DPS-200)

Network Management

In Band & Out of Band	Telnet, CLI/Console, RMON, Web-based HTTP, SNMPv1/v2/v3, Syslog, Port Mirroring, TFTP Client, BootP Client, DHCP Client, BootP/DHCP Client, IEEE 802.3 Ethernet, 802.3u Fast Ethernet, 802.3ab Gigabit Ethernet, 802.3z Gigabit Ethernet, 802.1d Spanning Tree, 802.1w Rapid Spanning Tree, 802.1p Priority Tags, 802.1q VLANs (4K static/ 255 dynamic), 802.3ad Link Aggregation (32 Groups/8 ports), 802.3x Flow Control, 802.1x Port-based /MAC based control, 802.1s (Multiple Spanning Tree), WRED congestion control, STP loopback detection, GVRP, Guest VLAN, Per port limit IP multicast address range, Web GUI Traffic Monitoring, Web MAC address Browsing, SNMP Trap on MAC Notification, DHCP Relay Option, DHCP Auto-configuration, Trap/Alarm/Log Severity Control, Dual Image, Dual Configuration, Port Description, Editable Login Banner, Editable System prompt, Virtual Interface/Loopback Interface[1]

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IETF	RFC 1157 SNMP, RFC 1112/2236 IGMPv1/2 IGMPv3, RFC 1757/2021/2819 RMON (4 Groups), RFC 1493 Bridge MIB, RFC 1213 MIB II, RFC 793 TCP, RFC 826 ARP, RFC 854 Telnet, and DiffServ, RFC 1724 RIP v1/2, RFC 1850 OSPF, DVMRP, RFC 2934 PIM-DM, PIM-SM, RFC 2932 Multicast Routing, RFC 2787 VRRP, RFC 2096 IP Forwarding Table, RFC 2618/2620 RADIUS Client, RFC 2863 IF MIB, RFC 2674 802.1p MIB, RFC 2665 Ether-like MIB, SSH, SSL, TACACS+, IGMPv3 MIB, RFC 2620 RADIUS Accounting Client MIB

Electrical & Emissions Summary

Emissions	CE Class A, FCC Class A, VCCI Class A, C-Tick Class A
Power Supply	AC Input: 100 - 240 VAC, 50/60 Hz Internal Universal Power Supply
Power Consumption	24 Watts

Safety Agency Certification

Safety	CSA International, CB Report

Physical and Environmental

Temperature	Operating: 32° to 104° F (0° to 40° C) Storage: -40° to 158° F (-40° to 70° C)
Humidity	Operating: 10% ~ 85% RH, Non-condensing Storage: 5% ~ 95% RH, Non-condensing

Physical Specifications

Dimensions (W x D x H)	12.16in x 17.36in x 1.73in (339mm x 441mm x 44mm) 1U Rack-mount size
Weight	8.6lbs (3.9kg)
Accoustic Value	< 51dB

Warranty Information

Warranty	Limited Lifetime[2]

Ordering Information

Part Number	Description
DES-3828	xStack Managed 24-Port 10/100 Stackable L3 Switch, 4 Gigabit Copper Ports, 2 Combo SFP
DEM-310GT	1000BASE-LX SFP Module up to 10Km
DEM-311GT	1000BASE-SX SFP Module up to 550m
DPS-200	Redundant Power Supply Unit, 60 Watt RPSU
DPS-800	2 Slot Redundant Power Supply Unit Chassis, for DPS-200

[1] Available in future firmware upgrade
[2] Limited Lifetime Warranty available only in the USA and Canada

BUSINESS